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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,242	12/03/2003	Nigel V. Spurr	H0005873	4894

7590 10/10/2006

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EXAMINER

LEE, EDMUND H

ART UNIT PAPER NUMBER

1732

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,242

Applicant(s)

SPURR ET AL.

Examiner

EDMUND H. LEE

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/27/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election without traverse of claims 1-11 in the reply filed on 7/25/06 is acknowledged.
2. Per applicant's amendment filed 7/25/06, claims 12-20 have been canceled.
3. Claims 1-11 and 21-26 are pending.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Mehta (USPN 5319522). Mehta teaches the claimed process as evidenced at figs 5-6.
6. Claims 1,2,3,4,5,7,8,9,10,11,21,22,24,25, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Norman (USPN 5236234). Norman teaches the claimed process as evidenced at col 5, lns 7-44, and figs 1-2 and 8. Norman teaches that the electrical circuit is encapsulated and molded into the molding, and the connection tabs of the pressing/circuit are shaped to enable mating with other parts of the latching mechanism.
7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman (USPN 5236234) in view of Mehta (USPN.5319522). In regard to claim 1, Norman teaches the basic claimed process including a molding method (col 5, Ins 7-44, and figs 1-2 and 8); providing a mold having a mold cavity formed therein (col 5, Ins 7-44, and figs 1-2 and 8); locating an electrical circuit within the mold cavity, wherein the circuit comprises electrical components assembled to an electrical circuit board prior to any molding operations thereof (col 5, Ins 7-44, and figs 1-2 and 8); and molding a plastic material into the mold cavity of the mold, wherein the material covers and seals the circuit to provide insulation and environmental protection to the circuit (col 5, Ins 7-44, and figs 1-2 and 8). Norman, however, does not teach injecting the material into the mold cavity. Mehta teaches an injection molding method for encapsulating an electrical circuit (figs 5-6). Furthermore, it should be noted that injection molding a molding material to encapsulate an electrical circuit is notoriously well-known in the encapsulation art. See class 264, subclass 272.17. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to inject the material of Norman as taught by Mehta in order to facilitate the encapsulation of an electrical circuit. In regard to claims 2-5 and 7-9, such limitations are taught Norman (col 5, Ins 7-44, and figs 1-2 and 8). In regard to claim 6, the specific design of pivot feature in the molding is a mere obvious matter of choice dependent on the desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed design of a pivot is well-

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known in the latch mechanism art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a pivot feature into the mold design of Norman in order to allow the molding of a diverse product.

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman (USPN 5236234) in view of Mehta (USPN 5319522). In regard to claim 10, Norman teaches the basic claimed process including a molding method (col 5, lns 7-44, and figs 1-2 and 8); providing a mold having a mold cavity formed therein (col 5, lns 7-44, and figs 1-2 and 8); locating an electrical circuit within the mold cavity, wherein the circuit comprises electrical components assembled to an electrical circuit board prior to any molding operations thereof (col 5, lns 7-44, and figs 1-2 and 8); molding a plastic material into the mold cavity of the mold, wherein the material covers and seals the circuit to provide insulation and environmental protection to the circuit (col 5, lns 7-44, and figs 1-2 and 8); integrating the circuit with a latch mechanism, wherein the circuit communicates electrically with the mechanism (col 5, lns 7-44, and figs 1-2 and 8); and configuring the mold to provide a mold form geometry that permits a plurality of components to be connected electrically to the circuit and the latch mechanism after the molding of the material into the mold cavity (col 5, lns 7-44, and figs 1-2 and 8). Norman, however, does not teach injecting the material into the mold cavity. Mehta teaches an injection molding method for encapsulating an electrical circuit (figs 5-6). Furthermore, it should be noted that injection molding a molding material to encapsulate an electrical circuit is notoriously well-known in the encapsulation art. See class 264,

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subclass 272.17. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to inject the material of Norman as taught by Mehta in order to facilitate the encapsulation of an electrical circuit. In regard to claim 11, such limitations are taught Norman (col 5, lns 7-44, and figs 1-2 and 8).

10. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman (USPN 5236234) in view of Mehta (USPN 5319522). In regard to claim 21, Norman teaches the basic claimed process including a molding method (col 5, lns 7-44, and figs 1-2 and 8); providing a mold having a mold cavity formed therein (col 5, lns 7-44, and figs 1-2 and 8); locating an electrical circuit within the mold cavity, wherein the circuit comprises electrical components assembled to an electrical circuit board prior to any molding operations thereof (col 5, lns 7-44, and figs 1-2 and 8); molding a plastic material into the mold cavity of the mold, wherein the material covers and seals the circuit to provide insulation and environmental protection to the circuit (col 5, lns 7-44, and figs 1-2 and 8); integrating the circuit with a latch mechanism, wherein the circuit communicates electrically with the mechanism, wherein the mechanism comprises a vehicle door latch of a vehicle door latch assembly (col 5, lns 7-44, and figs 1-2 and 8); and configuring the mold to provide a mold form geometry that comprises at least one gap in which an additional component can be located, wherein the geometry permits a plurality of components to be connected electrically to the circuit and the latch mechanism after the molding of the material into the mold cavity (col 5, lns 7-44, and figs 1-2 and 8). Norman, however, does not teach injecting the material into the mold

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cavity. Mehta teaches an injection molding method for encapsulating an electrical circuit (figs 5-6). Furthermore, it should be noted that injection molding a molding material to encapsulate an electrical circuit is notoriously well-known in the encapsulation art. See class 264, subclass 272.17. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to inject the material of Norman as taught by Mehta in order to facilitate the encapsulation of an electrical circuit. In regard to claims 22 and 24-26, such limitations are taught Norman (col 5, lns 7-44, and figs 1-2 and 8). In regard to claim 23, the specific design of pivot feature in the molding is a mere obvious matter of choice dependent on the desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed design of a pivot is well-known in the latch mechanism art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a pivot feature into the mold design of Norman in order to allow the molding of a diverse product.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 2002-347065 teaches encapsulating an electrical circuit by injection molding.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

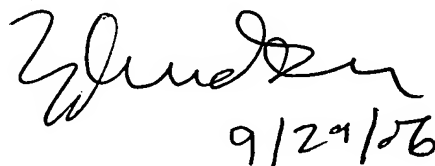
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571.272.1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDMUND H. LEE
Primary Examiner
Art Unit 1732

EHL



9/29/06